REMARKS

Applicants request reconsideration of the above-identified application in light of the remarks set forth herein.

Claims 1 and 2 are pending in this application. Claim 2 has been amended.

Claims 1 and 2 have been rejected under 35 U.S.C. § 103(a). Applicants respectfully submit that all claims are now in condition for allowance. Accordingly, applicants request reconsideration and allowance of all claims.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1 and 2 stand rejected as obvious over U.S. Patent No. 5520877, issued to Collette et al. (hereinafter "Collette"), in view of U.S. Patent No. 4476170, issued to Jabarin et al. (hereinafter "Jabarin"), U.S. Patent No. 4177239, issued to Gittner et al. (hereinafter "Gittner"), and U.S. Patent No. 4641758, issued to Sugiura (hereinafter "Sugiura"). Applicants respectfully disagree.

To establish a *prima facie* case of obviousness, the cited prior art references must teach or suggest all the claim elements. In addition, there must be some apparent reason, either in the references or in the knowledge of one skilled in the art, to modify the reference or to combine the elements of multiple references with a reasonable expectation of success.

Claim 1 generally recites a biaxially-oriented polyester container formed by a double-stage orientation blow molding method, the container having a uniformly elongated bottom part having uniform wall thickness. When an X-ray diffraction measurement is performed in a bottom center area and within 1/2 of the radius of a container bottom part of said biaxially oriented polyester container, a peak indicative of molecular orientation is observed near a diffraction angle of $2\theta = 15$ to 30°. In addition, an orientation parameter (BO) expressed by the following formula is in the range of $0.5 \leq BO \leq 2$ in the bottom center area and within 1/2 of

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the radius of the container bottom part: orientation parameter (BO) = Ix / Iy. Ix indicates a diffraction intensity near the diffraction angle of $2\theta = 15$ to 30° when the X-ray diffraction measurement is performed in the X-direction, and Iy indicates a diffraction intensity near the diffraction angle of $2\theta = 15$ to 30° when the X-ray diffraction measurement is performed in a direction orthogonal to that for Ix.

Claim 2, as currently amended, generally recites a method of manufacturing the biaxially-oriented polyester container defined in Claim 1, the method including:

(a) performing two-stage primary orientation blow molding of a preform made of a polyester resin to obtain a primary molded product larger than a final molded product, wherein the bottom part of the primary molded product is restrained by a stretch rod and a press rod in the first stage, and the bottom part of the primary molded product is released from the restrained state in the second stage;

(b) heat-shrinking said primary molded product into a secondary molded product; and

(c) performing secondary orientation blow molding of said secondary molded product to obtain the final molded product.

The Office Action has cited Collette as teaching a method for forming a biaxially oriented, bottle-shaped container by first blow molding a preform to a size larger than the final product size, heat shrinking the intermediate product, and then blow molding the intermediate to obtain the final product. The Office Action admits, however, that Collette is silent with respect to whether the bottom of the preform is unrestrained during the primary blow molding step. Therefore, the Office Action has cited Jabarin as teaching that poly(ethylene terephthalate) bottles can be made without the use of any mechanical axial stretching. See Column 7, lines 60-64, of Jabarin ("many commercial biaxially oriented bottles are made by blow molding without the use of any mechanical axial stretching").

Collette and Jabarin, whether cited alone or in combination, fail to teach or suggest all of the elements of Claim 2. Specifically, the cited references fail to teach or suggest "performing two-stage primary orientation blow molding of a preform made of a polyester resin to obtain a primary molded product larger than a final molded product, wherein the bottom part of the primary molded product is restrained by a stretch rod and a press rod in the first stage, and the bottom part of the primary molded product is released from the restrained state in the second stage," as recited in Claim 2. As mentioned above, the Office Action admits that Collette is silent with respect to whether the bottom of the preform is unrestrained during the primary blow molding step. Moreover, Jabarin merely mentions that "many commercial biaxially oriented bottles are made by blow molding without the use of any mechanical axial stretching" and does not describe the two-stage primary orientation blow molding as described and claimed in the present application. For at least this reason, the cited references fail to teach or suggest all of the elements of Claim 2. Accordingly, applicants respectfully request withdrawal of the claim rejection.

Regarding Claim 1, the Office Action admits that both Collette and Jabarin are silent with respect to whether the bottom of the container has a uniformly oriented and thinned wall bottom part. The Office Action cites Sugiura as purportedly teaching a bottom with thin walls and an essentially uniform biaxially oriented bottom. Further, the Office Action cites Gittner as purportedly teaching that it is known in the art to uniformly orient the bottoms of containers such as bottles.

As described in the present application, the release of the bottom part of the preform from the restrained state in the second stage of primary orientation blow molding (see, e.g., FIGURES 5 and 6) results in a bottle having uniform elongation in or near a bottom center area, which results in orientation parameters in and near the bottom center area in a range as recited in

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Claims 1 and 2. As described at pages 2 and 3 of the present application, when the bottom part of a preform 10 is restrained by a stretch rod 14 and a press rod 15 as shown in FIGURE 11 (prior art), the bottom part of the polyester container is not sufficiently elongated and a non-elongated portion remains in or near a bottom center area of the polyester container. Moreover, as described at pages 9-10 of the present application, also referring to the prior art method shown in FIGURE 11, wherein biaxial orientation blow molding is performed in the state in which the bottom part of the preform 10 is restrained by the stretch rod and the press rod, "the biaxially oriented polyester container cannot be obtained in which the orientation parameter (BO) in and near the bottom center area is in the range specified according to the present invention."

A review of Sugiura and Gittner shows bottles having bottom parts that are not released from restrained states when the primary orientation blow molding is performed (see, e.g., Sugiura at Figure 19 and Gittner at Figures 3, 6, 9, and 14). As a result of the restrained states, neither Sugiura nor Gittner can achieve a uniform elongated bottom part or the X-ray diffraction and orientation parameter values recited in the claimed invention. For at least this reason, the cited references fail to teach or suggest all of the claim element of Claim 1. Accordingly, applicants respectfully request withdrawal of the claim rejection.

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Conclusion

In view of the foregoing amendments and remarks, applicants respectfully submit that the present application is in condition for allowance. The Examiner is invited to contact the undersigned representative with any remaining questions or concerns.

Respectfully submitted,

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